0054469

Meeting Minutes Transmittal

PFP Project Managers Meeting
Federal Building/Room 249

Richland, Washington

January 17, 2001
9:00 a.m. to 10:00 a.m.

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers Meeting.

M. R. Hahn, PFP Project Manager, DOE-RL — Date: 2/14/01

J. K. Yerxa, TPA Project Manager, DOE-RL — Date: 2-14-01

F. W. Bond, Project Manager, Washington State Department of Ecology — Date: 2/14/01

PFP, FH Concurrence:

L. R. Fitch, Contractor Representative, FH — Date: 2/14/01

Purpose: Project Managers Meeting

Attachment 1: Agenda
Attachment 2: Meeting Minutes
Attachment 3: Attendee List
Attachment 4: Pu/Al Alloy Residues

Attachment 1

PFP Project Managers Meeting Agenda
Federal Building/Room 249
Richland, Washington

January 17, 2001
9:00 a.m. to 10:00 a.m.

1. Administrative Issues
   a. Approval of the December Meeting Minutes
   b. April 18, 2000 PFP TPA/RCRA Issues Meeting Minutes Approval – Rick Bond

2. PFP Project Item Status
   a. PFP Project Overview Status – Larry Fitch
   b. Hanford Ash Repackaging TPA Negotiations Status - Jon Yerxa
   c. Hanford Ash Characterization – Andrea Hopkins
   d. Tank Z 361 BCR/TPA Status – Keith Hampton

3. Conduct Technical Discussion Topics
   a. Project Baseline/DNFSB [complete 9/26]
   b. PFP Tour (scheduled 10/18) [complete]
   c. IPMP Detailed Overview (scheduled 10/19) [complete]
   d. Residues Overview-Hanford Ash (scheduled 10/25) [complete]
   e. WIPP Interface (scheduled 11/16) [complete]
   f. TPA Section 8 Overview (scheduled 11/30) [complete]
   g. Hanford Ash Characterization/Designation (scheduled 12/19)
   h. WIPP Interface (scheduled 1/3) [complete]
   i. Pu alloys (scheduled 1/17)
   j. AEA/RCRA Storage Issue (scheduled 1/25)
   k. AEA/RCRA Storage Issue follow-up (scheduled 2/8)
   l. Tank 241 (scheduled 2/22)
   m. Introduction to Vessel Inventory planning (scheduled 3/1)

4. New Topics

5. Next meeting is February 14, Federal Building, Room 249, 9:00 a.m.-11:00 a.m.

Attachment 2
Summary of Discussion and Commitments/Agreements

PFP Project Managers Meeting
Federal Building/Room 244B
Richland, Washington

January 17, 2001
9:00 a.m. to 10:00 a.m.

ADMINISTRATIVE ISSUES

December meeting minutes were sent out and there were no comments. Minutes approved.

The meeting minutes from April 18, 2000, continue to be under review and awaiting a meeting with Ecology to discuss.

PFP PROJECT OVERVIEW STATUS - Larry Fitch

Larry Fitch had a prior commitment and was unavailable so Andrea Hopkins provided the update. The repackaging of the Rocky Flat ash is proceeding on schedule. Allison Wright added that FH is behind schedule for what is in the MYPP baseline and working to a recovery schedule to complete Rocky Flats Ash Repackaging. On January 8, a second shift was added to support repackaging. Going to a second shift has made considerable progress towards meeting the milestone due date. The Rocky Flats TPA change request (M-83-00-01) in section 2. Identification of Waste, states that 401 "juice" cans will be packaged. The project discovered approximately 15 additional Rocky Flats Ash juice cans that need to be packaged. The parties discussed the need to amend the TPA CR to add the 15 additional cans or would documentation in the project managers meeting be sufficient. Jon Yerxa stated that if it is not under the milestone description, then the TPA CR will not need to be amended and documenting in the PMM minutes would be adequate. For the record, PFP will package ~~the~~ 15 Rocky Flats Ash cans in addition to the 401 cans that were previously identified in the TPA CR, within the April 30, 2001 milestone due date.

HANFORD ASH REPACKAGING TPA NEGOTIATIONS STATUS – Jon Yerxa

The Draft Hanford Ash TPA Change request was provided to Ecology on October 25. Rick Bond is satisfied with it and has requested that a ~~final~~ copy be sent to Ecology to get it moving. Jon Yerxa said he would try to get the ~~final~~ to them by next week.

HANFORD ASH CHARACTERIZATION – Andrea Hopkins

Nothing new to report. Will put the waste codes into the change request as soon as they are determined. Rick Bond says Ecology appears to be ok with the characterization.

TANK Z 361 BCR/TPA STATUS – Keith Hampton

No change. Need to establish milestones but cannot do it until the baseline change request is approved. The final Characterization Report is due at the end of June. The attendees would like to keep this issue on the agenda.

Pu/Al Alloy Residues – Larry Oates

Larry Oates provided a Technical Negotiation Discussion on Pu/Al Alloy Residues. The objective of the TND is to explain the sources of the material, groupings of the items and provide background information to develop an understanding of the disposition of items in Group I.

NEW TOPIC

No new topics.

Attachment 3
Attendance List

Meeting Title: PFP Project Managers Meeting

Date: January 17, 2001

Original included in hard copy.

Name	Company	Phone Number
Roger C. Bowman	FH	376-4876
Andrea M. Hopkins	FH	373-5395
Rob E. Piippo	FH	373-3285
Sheri Stolle	FH	376-7037
Oliver S. Wang	Ecology	736-3040
Rick Bond	Ecology	736-3007
Jon K. Yerxa	DOE-RL	376-9628
Astrid Larsen	DOE-RL	372-0477
Mark Hahn	DOE-RL	373-9872
Allison Wright	DOE-RL	373-7303
Mitzi Miller	EQM	946-4985
Larry Oates	EQM	946-4985

Pu/Al Alloy Residues

Larry Oates
Environmental Quality Management
January 17, 2001

Objectives

- Explain the sources of the material and the Groupings of the Items
- Provide background information to develop an understanding of the Items in Group I

Pu/Al Alloy Residues

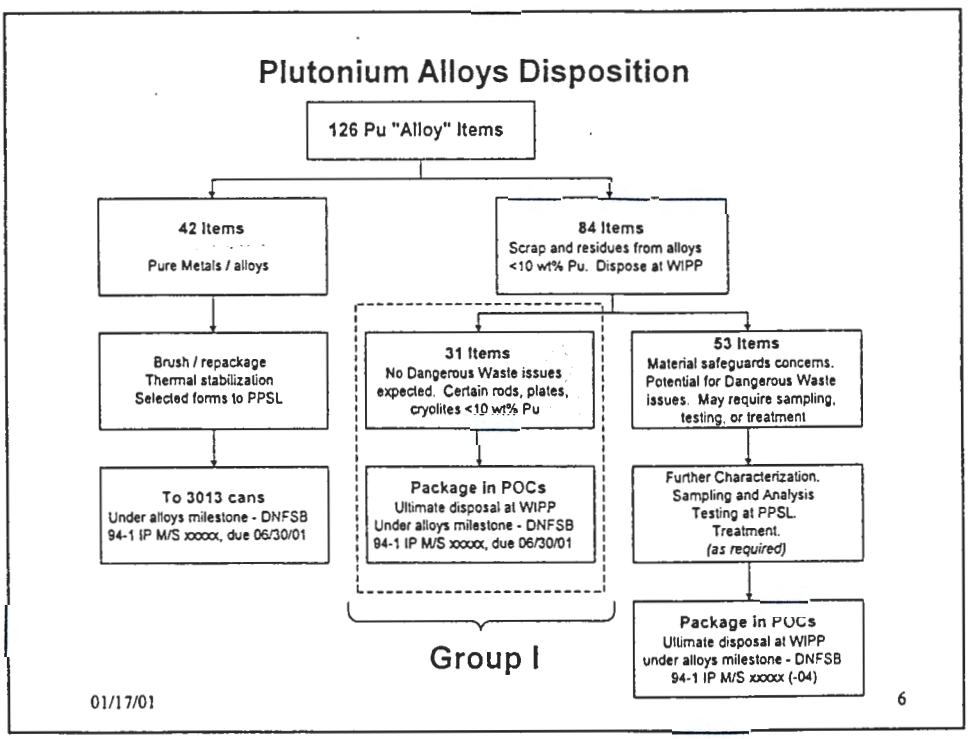
- Scrap from Fuel Fabrication Processes
- Items are in storage at PFP
- FH developing waste designation and characterization procedures
- Potential for feed shift in repackaging schedule

Sources for All Pu/Al Alloy

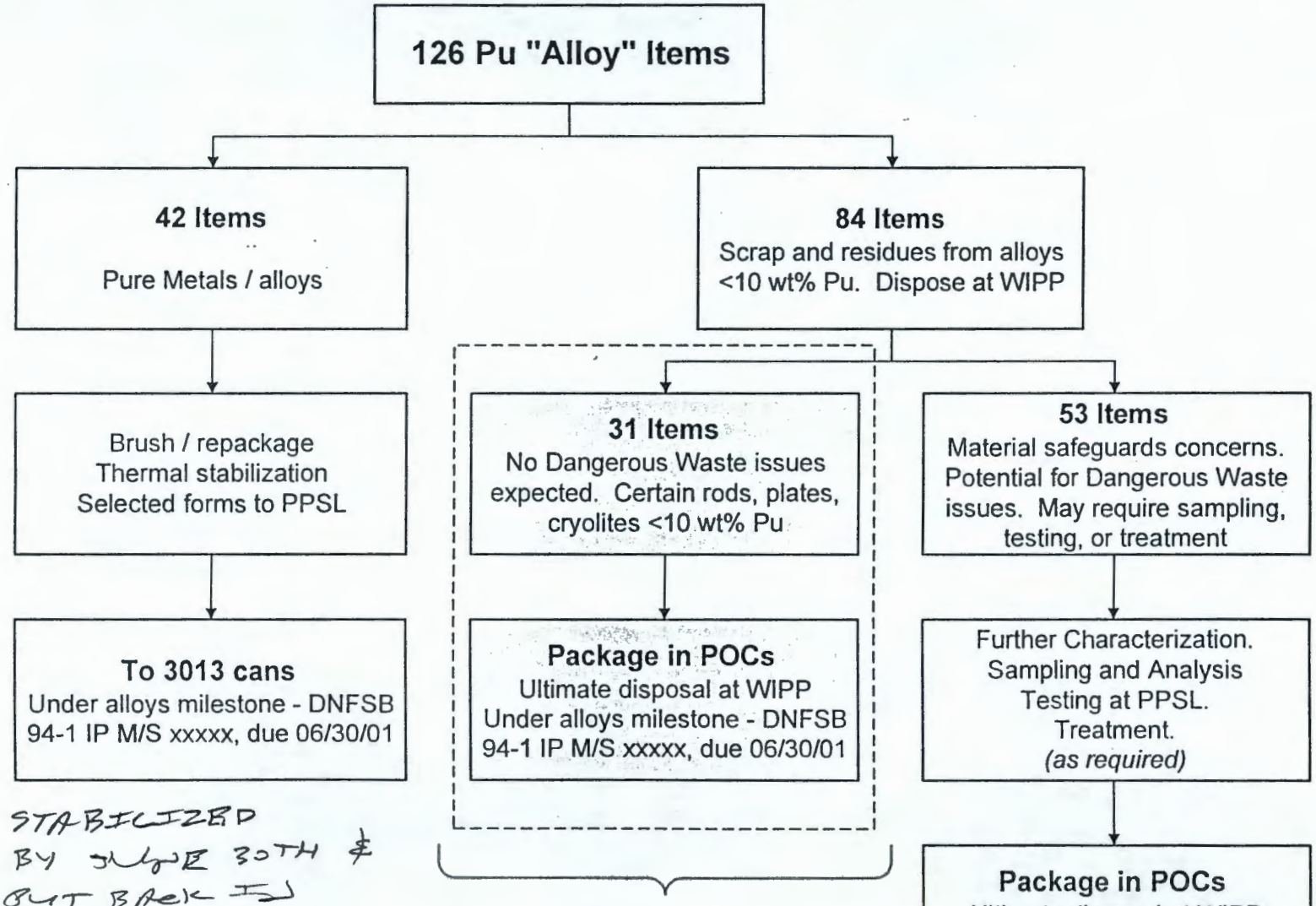
- Legacy materials from 1950s and 60s from evaluating plutonium as power reactor fuel
- Hanford R&D focus was on fuel elements for the Plutonium Recycle Test Reactor (PRTR); some fuels were developed for other DOE sites
- Some items from Australian Fuel Development Program

Plutonium Alloys Disposition

- 126 total items in PFP inventory
  - 84 potential candidates for shipment to the WIPP (Group I is a subset of these items)
  - 42 candidates for long-term storage in 3013 containers



Plutonium Alloys Disposition



STABILIZED BY JUNE 30TH & PUT BACK IN VAULT

AGR/MAY REPACKAGE BY JUNE 30

Items Suitable for "As-is" Disposition to WIPP - Group I

- 31 items with Pu content <10 weight percent
  - Scrap materials; no shavings, chips, or turnings
  - Pu/Al clad plates (low Pu content alloys clad with aluminum)
  - Al/Pu in cryolite (a non-reactive inorganic salt heated to over 1000°C during the reduction cycle)
  - Pu-cryolite in Flux
  - PuO_2 Alloy blends
  - Al rods

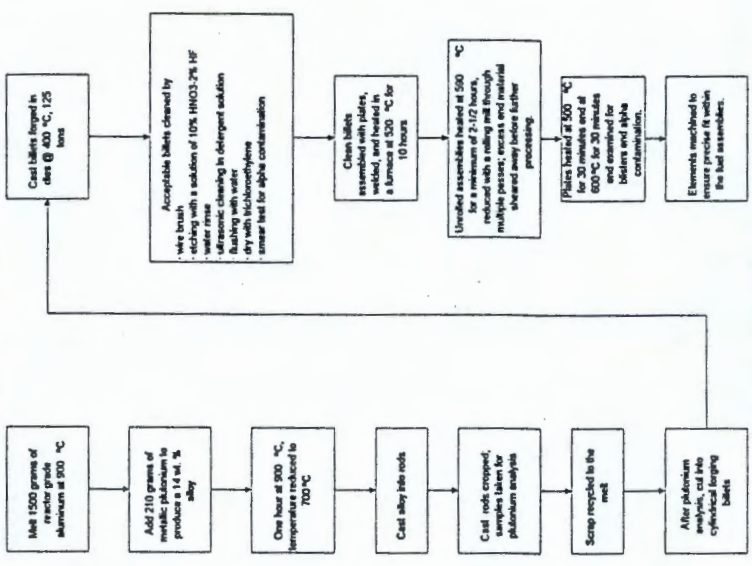
Operations History

- PRTR began operations in July of 1961 with Pu/Al enriched elements
- April 1962, mixed plutonium-uranium oxide elements replace Pu/Al elements
- Items traceable to this time frame

Process Activities

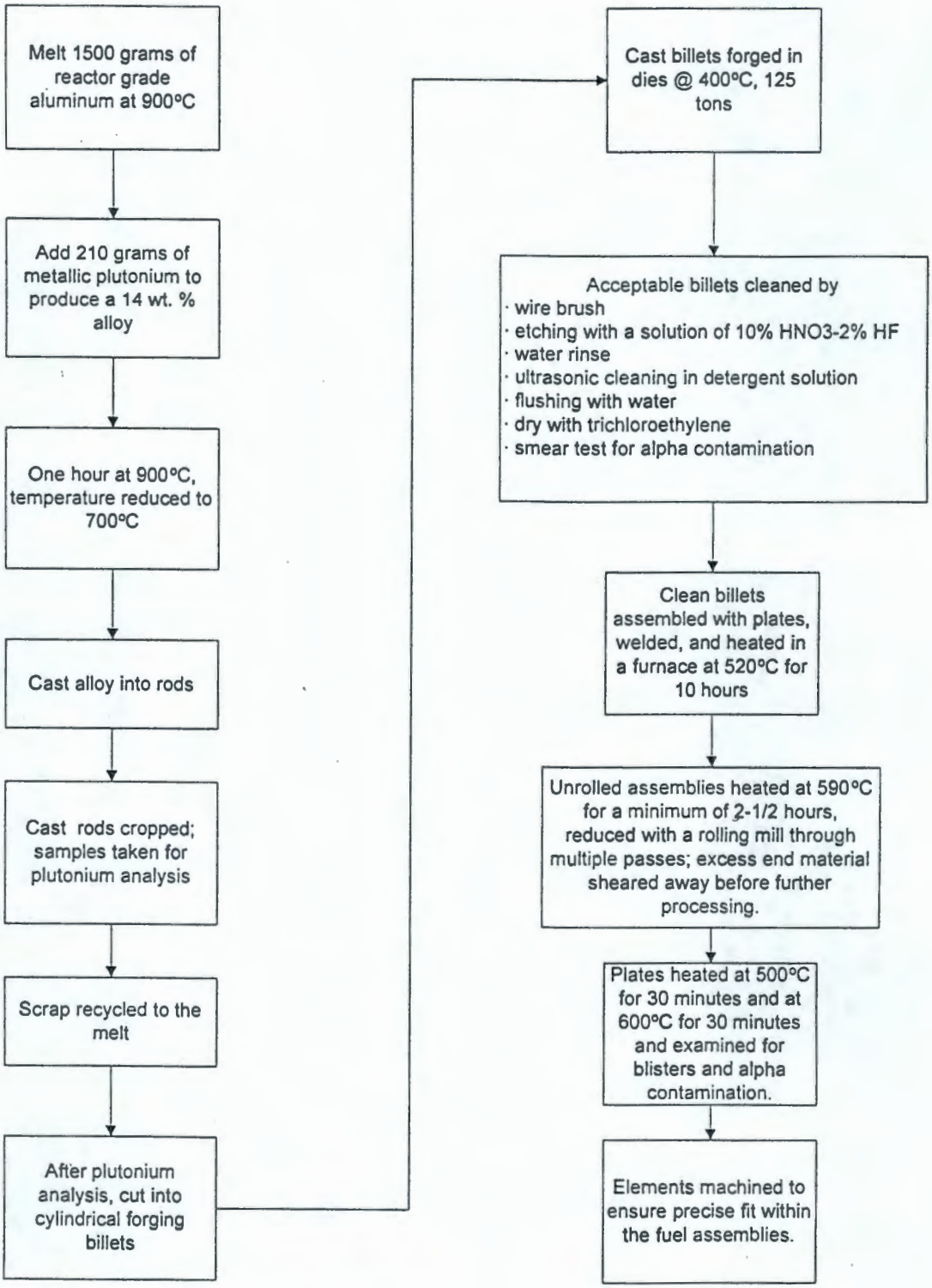
- Fuel produced in the 308 Building
- Metallurgical and mechanical processes:
  - furnace melting and casting
  - extrusion
  - forging
  - pressing
  - drawing
  - machining
- Scrap recycled to recover plutonium for re-use

Typical Steps in the Process of Forming Pu/Al Plates, Rods, and Billets



Information from *Plutonium Handbook*

Typical Steps in the Process of Forming Pu/Al Plates, Rods, and Billets



Information from *Plutonium Handbook*

Process Activities (cont.)

- Original design incorporated vapor degreaser; process was never used.
- Facility did not use solvents or lubricants in their processes (personal communication, L. Merker, 01/08/01).
- Graphite molds and crucibles were used because they required no lubrication.
  (Use of a lubricant "caused black spots in the extrusion which could not be easily removed and seemed to initiate galling"[p. 602 - Pu Handbook]).

Pu/Al Scrap Process Knowledge

- No evidence to suggest use of solvents or degreasers.
- Lubricants would have been Fab Oil (Lard Oil + CCL_4), commonly used for machining Pu.
- Items are generally of "significant" size.
- Records do not indicate special handling or problems with Pu/Al scrap and residue.

Process Knowledge (cont.)

- Fuels were carefully refined to assure that trace metal concentrations were low, so as to not affect reactor performance.
- No sampling previously conducted to support waste designation.
- Limited qualitative spectrographic analyses, performed in 1961, indicate trace metals ($\leq 0.01\%$) in alloy.

Summary

- Pu/Al residues were generated from Fuel Fabrication Processes
- Processes were mechanical in nature, no wet chemistry, and with strict quality criteria
- No apparent use of solvents or degreasers in Hanford Processes

Summary (cont.)

- Limited analytical data available
- Group I items are clearly traceable to Hanford fuel fabrication

Distribution:

F. W. Bond	Ecology	B5-18
S. E. Clarke	DOE-RL	A6-38
L. R. Fitch	FH	T5-57
A. M. Hopkins	FH	H5-24
M. R. Hahn	DOE-RL	R3-79
R. E. Piippo	FH	A1-14
O. S. Wang	Ecology	B5-18
J. K. Yerxa	DOE-RL	A5-15

ADMINISTRATIVE RECORD (two copies): A1-14

Please send comments on distribution list to Lori D. Crass (A1-14), 509-373-9485